DIVERSITY OF EPIPHYTIC LICHEN IN NGLIMUT FOREST GONOHARJO KENDAL

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ABSTRACT

Human activities in fulfilling necessities of life has encouraged development in various sectors. On the other hand development activities provide benefits for humans, but on the other hand development also resulted in changes to the environmental conditions and availability of biological resources, availability of biological resources in the forest was also affected by human activities, no exception in the forest Nglimut Gonoharjo. Land use changes that occured in the forest Nglimut Gonoharjo certainly affect on condition of the forest ecosystem. Health of forest ecosystems can be viewed from species diversity of lichens, because lichens can be used as bioindicators well as to monitor the health of a region. The method used is the exploration, lichen data taken at breast height of trees. The parameters observed include species diversity, frequency of attendance. The identification is done manually by using literature and search via the Internet. Based on the results of identification of specimens obtained, recorded nine orders with 22 families, 34 genera and 46 species..Lecanorales is the the largest order by 9 family. The the largest family is Parmeliaceae by 7 genera and 9 species ie Parmotrema perlatum, Parmelia saxatilis, Punctelia jeckeri, Punctelia subrudecta, Punctelia borreri, Hypotrachyna revolute, Hypogymnia physodes, Bryoria fuscescens, Parmeliopsis hyperopta.

Keywords: *Nglimut forest, divrtsity, lichens :*

1. INTRODUCTION

Human activities in fulfilling necessities of life has encouraged development in various sectors. On the other hand development activities provide benefits for humans, but on the other hand development also resulted in changes to the environmental conditions and availability of biological resources, availability of biological resources in the forest was also affected by human activities, no exception in the forest Nglimut Gonoharjo.

Forest Nglimut Gonoharjo located on the west slope of Mount Ungaran, with an altitude of 700-1000 m above sea level. Administratively including Kendal regency, whereas forest managers are Perhutani Unit I of Central Java. In this forest found natural forests, but has been a shift in land use, the forest manager will also make it as productive forest such as forest pine, and tea and coffee plantations. Nglimut Forests potentially a beautiful nature, so that a local government to be developed it into a turism object, so-called ecotourism.

Land use changes that occurred in the forest Nglimut Gonoharjo certainly affect on condition of the forest ecosystem. Health of forest ecosystems can be viewed from species diversity of lichens, because lichens can be used as bioindicators well as to monitor the health of a region. Lichen can be used to monitor pollutants [1], Community of lichens can be used as a forest health indicator [2], In Canada lichen is recommended for forest health biomonitoring [3].

Lichen is not an individually organism independently, but symbionts of fungal and algal. Mycobion usually derived from Ascomycetes and Phycobion derived from Cyanobacteria which are mutualism. Association of phycobion and mycobion produce organism is called lichen. Lichens as a sensitive organism is able to absorb and accumulate pollutants, heavy metals, sulfur, NO2, ozone from the air, because lichens do not have cuticle [4]

2. MATERIALS AND METHODS

Ecotourism Gonoharjo located at plots 11 a, c and f RPH Gempol BKPH Ambarawa North Kedu KPH, administratively located in the Village Gonoharjo, District Limbangan, Kendal Regency. The total area of 77 ha and the total area managed about 15 ha, located at the foot of Mount Ungaran at an altitude of 700-1000 m above sea